



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/730,525	12/08/2003	Agapios Kyriacos Agapiou	2001U039.US	4271
7590 09/15/2005				
KEVIN M. FAULKNER UNIVATION TECHNOLOGIES, L.L.C. SUITE 1950 5555 SAN FELIPE ST. HOUSTON, TX 77056-2746		EXAMINER PASTERCZYK, JAMES W		
		ART UNIT 1755 PAPER NUMBER		

DATE MAILED: 09/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/730,525

Applicant(s)

AGAPIOU ET AL.

Examiner

J. Pasterczyk

Art Unit

1755

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 6-9, 11-13, 15-34 and 75-79 is/are pending in the application.
- 4a) Of the above claim(s) 59 and 75 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-9, 11-13 and 15-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-3, 6-9, 11-13, 15-34 and 75-79 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date. _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1755

1. This Office action is in response to the amendment filed 8/30/05 and refers to the rejection mailed 8/18/05.

2. Claims 1-3, 6-9, 11-13 and 15-34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, the process recites that in step (a) ethylene and other alpha olefins are polymerized, i.e. this is a copolymerization process, yet the process produces a polyethylene polymer having a specified bulk density. How can a copolymerization process produce pure polyethylene?

In claims 6, 15 and 16, the recited fouling index, while supported in the specification at paragraph 0021, is not an affirmative limitation on how to perform the process but is more a result of performing the process in some manner that is not necessarily fully claimed in claim 1. It is also something of a non-sequitur for a reactor to demonstrate a particular fouling index since that number is surely a result of a number of variables, not all of which are necessarily recited as limitations in the claim. Likewise, the activity of the catalyst in claim 13 is not a process limitation since this value is far more likely a function of the catalyst, its loading on the support, and various other limitations not necessarily recited in the claim.

Claim 11 now depends from a cancelled claim, hence its limitations are not fully recited.

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Art Unit: 1755

4. Claims 1-3, 6-9, 11-13 and 15-34 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over McCullough as cited in and for the reasons of record given in the previous Office action.

5. Applicant's arguments filed 8/30/05 have been fully considered but they are not persuasive.

In example 4 of McCullough, assuming that MAO has a molecular weight of 58 g/mol based on one monomer unit, and the metallocene has a molecular weight of 427 g/mol, the amount of MAO on the support is 6.4 mmol/g and the amount of metallocene is 0.05 mmol/g, both values well within the ranges for these two variables recited in the independent claim. The only value left to ascertain is the density of polyethylene produced by the process using these amounts of reagents. However, as noted above, it is not clear how a copolymerization process produces a homopolymer, and the prior art polymerization process corresponding to the present invention is example 10, which copolymerizes ethylene and 1-hexene. Since the PTO is not equipped with chemical testing facilities, it has long been recognized that applicants have the burden of showing that the prior art does not in fact read on the claims at issue; this has not been done, applicants instead relying on attorney's argument. Undoubtedly other examples of McCullough have similar values of amounts of MAO and metallocene per gram of support.

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

Art Unit: 1755

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Pasterczyk whose telephone number is 571-272-1375. The examiner can normally be reached on M-F from 9 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo, can be reached at 571-272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



J. Pasterczyk

AU 1755

9/7/05



J.A. LORENZO
SUPERVISORY PATENT EXAMINER